IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A fluid isolation system for use in gravel pack operations in a subterranean well comprising:

a work string having an inner wall;

a plug that can move within the work string while sealingly engaged to the inner wall of the work string;

a plug catcher mounted to the work string at some desired location in the well;

a crossover mounted to the work string below the plug catcher; and in which

the fluid above the plug is isolated from the fluid below the plug.

2. (Original) The fluid isolation system of claim 1 further comprising a plug head in which the plug initially resides.

3. (Original) The fluid isolation system of claim 1 in which the plug is a frangible element.

4. (Original) The fluid isolation system of claim 3 in which the frangible element is a diaphragm.

5. (Original) The fluid isolation system of claim 1 in which the plug has a central passageway covered by a frangible diaphragm.

6. (Original) The fluid isolation system of claim 1 in which the plug has ribs in sealing contact with the inner wall of the work string.

7. (Original) The fluid isolation system of claim 1 in which the plug catcher is an internal profile in the work string to prevent further downward motion of the plug.

8. (Original) The fluid isolation system of claim 1 further comprising a sand screen mounted to the work string below the crossover.

9. (Original) The fluid isolation system of claim 1 in which the fluid below the plug is a slurry.

10. (Original) The fluid isolation system of claim 1 further comprising a plurality of plugs.

11. (Currently amended) A fluid isolation system for use in gravel pack operations in a subterranean well comprising:

a work string having an inner wall;

a lower plug that can move within the work string while sealingly engaged to the inner wall of the work string, wherein the lower plug has a lower frangible diaphragm covering a central passageway through the lower plug;

an upper plug that can move within the work string while sealingly engaged to the inner wall of the work string; wherein the upper plug has an upper frangible diaphragm covering a central passageway through the upper plug;

a plug catcher mounted to the work string at some desired location in the well; and

a crossover mounted to the work string below the plug catcher;

in which the fluid between the lower plug and the upper plug is isolated from the fluid above the upper plug and below the lower plug.

12. (Canceled)

13. (Currently amended) The fluid isolation system of claim 11 ~~12~~ in which the fluid between the lower plug and the upper plug is slurry and the fluid above the upper plug is brine or drilling fluid.

14. (Original) The fluid isolation system of claim 11 further comprising a plug head in which the upper and lower plugs initially reside.

15. (Original) The fluid isolation system of claim 14 in which the plug head further comprises an injection pipe and a plurality of valves.

16. (Original) The fluid isolation system of claim 11 in which the plug catcher is an internal profile in the work string to prevent further downward motion of the lower plug.

17. (Original) The fluid isolation system of claim 11 in which the lower frangible diaphragm, upon the lower plug being restrained from further downward movement by the plug catcher, ruptures due to applied fluid pressure.

18. (Original) The fluid isolation system of claim 17 in which the upper plug continues to travel downward after the lower plug is restrained by the plug catcher, forcing the fluid below the upper plug to exit the work string through the crossover.

19. (Original) The fluid isolation system of claim 11 in which the upper frangible diaphragm, upon the upper plug being restrained from further downward movement by the lower plug, ruptures due to applied fluid pressure from above.

20. (Original) A method to isolate fluids during a gravel pack operation in a subterranean well comprising:

running a work string having a plug catcher and a crossover into the well;

placing a bottom plug having a lower frangible diaphragm covering a central passageway in the bottom plug into the work string;

pumping slurry into the work string above the bottom plug;

placing a top plug having an upper frangible diaphragm covering a central passageway in the top plug into the work string;

pumping fluid into the work string above the top plug;

displacing the top plug and the bottom plug until the bottom plug encounters the plug catcher;

further displacing the top plug until it encounters the bottom plug, the applied fluid pressure bursting the lower frangible diaphragm;

passing the slurry through the central passageway and out of the work string through the crossover; and

further applying fluid pressure to burst the upper frangible diaphragm.

21. (Original) The method of claim 20 in which the work string includes a detachable sand screen below the crossover and the method further comprises releasing the sand screen from the work string and retrieving the work string.